

60. A method according to claim 58, wherein the non-prostate cancer is selected from the group consisting of renal cancer, urothelial cancer, colon cancer, rectal cancer, lung cancer, breast cancer, metastatic adenocarcinoma to the liver.

61. A method according to claim 58, wherein the administering is carried out parenterally.

62. A method according to claim 61, wherein the administering is carried out intravenously.

63. A method according to claim 58, wherein the administering is carried out by intracavitary instillation.

64. A method according to claim 58, wherein the administering is carried out rectally.

65. A method according to claim 58, wherein the administering is carried out intramuscularly.

66. A method according to claim 58, wherein the antibody or antigen binding portion binds live cells and/or wherein the antibody is an IgG.

67. A method according to claim 58, wherein the antibody is selected from the group consisting of a monoclonal antibody and a polyclonal antibody.

68. A method according to claim 67, wherein the antibody is selected from the group consisting of an E99, a J415, a J533, and a J591 monoclonal antibody.

69. A method according to claim 67, wherein the antibody is a monoclonal antibody produced by a hybridoma having an ATCC Accession Number selected from the group consisting of HB-12101, HB-12109, HB-12127, and HB-12126.

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70. A method according to claim 58, wherein the antibody or antigen binding portion thereof binds to an epitope of prostate specific membrane antigen which is also recognized by a monoclonal antibody selected from the group consisting of an E99, a J415, a J533, and a J591 monoclonal antibody.

71. A method according to claim 70, wherein the antibody or antigen binding portion thereof binds to an epitope of prostate specific membrane antigen which is also recognized by monoclonal antibody J591.

72. A method according to claim 58, wherein the antibody or antigen binding portion thereof comprises an antigen binding portion of an amino acid sequence selected from the group consisting of SEQ ID NO:8 (variable heavy chain), SEQ ID NO:19 (variable light chain), an amino acid sequence of the variable heavy chain produced by the hybridoma having ATCC deposit no. HB-12126, and an amino acid sequence of the variable light chain produced by the hybridoma having ATCC deposit no. HB-12126.

73. A method according to claim 72, wherein the antibody or antigen binding portion thereof comprises an antigen binding portion of an amino acid sequence of SEQ ID NO:8 (variable heavy chain) or an amino acid sequence of the variable heavy chain produced by the hybridoma having ATCC deposit no. HB-12126 and an antigen binding portion of an amino acid sequence of SEQ ID NO:19 (variable light chain) or an amino acid sequence of the variable light chain produced by the hybridoma having ATCC deposit no. HB-12126.

74. A method according to claim 72, wherein the antibody or antigen binding portion thereof comprises an antigen binding portion of an amino acid sequence selected from the group consisting of SEQ ID NO:8 (variable heavy chain) and SEQ ID NO:19 (variable light chain).

75. A method according to claim 72, wherein the antibody or antigen binding portion thereof comprises an antigen binding portion of an amino acid sequence from SEQ ID NO:8

(variable heavy chain) and an antigen binding portion of an amino acid sequence from SEQ ID NO:19 (variable light chain).

76. A method according to claim 72, wherein the antibody or antigen binding portion thereof comprises an antigen binding portion of an amino acid sequence selected from the group consisting of an amino acid sequence of the variable heavy chain produced by the hybridoma having ATCC deposit no. HB-12126, and an amino acid sequence of the variable light chain produced by the hybridoma having ATCC deposit no. HB-12126.

77. A method according to claim 72, wherein the antibody or antigen binding portion thereof comprises an antigen binding portion of an amino acid sequence of the variable heavy chain produced by the hybridoma having ATCC deposit no. HB-12126 and an antigen binding portion of an amino acid sequence of the variable heavy chain produced by the hybridoma having ATCC deposit no. HB-12126.

78. A method according to claim 58, wherein the antibody or antigen binding portion thereof comprises an antigen binding portion of an amino acid sequence encoded by a nucleic acid sequence selected from the group consisting of SEQ ID NO:6 (variable heavy chain), SEQ ID NO:17 (variable light chain), a nucleic acid sequence which encodes the variable heavy chain produced by the hybridoma having ATCC deposit no. HB-12126, and a nucleic acid sequence which encodes the variable light chain produced by the hybridoma having ATCC deposit no. HB-12126.

79. A method according to claim 78, wherein the antibody or antigen binding portion thereof comprises an antigen binding portion encoded by a nucleic acid sequence of SEQ ID NO:6 (variable heavy chain) or a nucleic acid sequence which encodes the variable heavy chain of the hybridoma having ATCC deposit no. HB-12126 and an antigen binding portion encoded by a nucleic acid sequence of SEQ ID NO:17 (variable light chain) or a nucleic acid sequence which encodes the variable light chain produced by the hybridoma having ATCC deposit no. HB-12126.

80. A method according to claim 78, wherein the antibody or antigen binding portion thereof comprises an antigen binding portion of an amino acid sequence encoded by a nucleic acid sequence selected from the group consisting of SEQ ID NO:6 (variable heavy chain) and SEQ ID NO:17 (variable light chain).

81. A method according to claim 78, wherein the antibody or antigen binding portion thereof comprises an antigen binding portion of an amino acid sequence encoded by a nucleic acid sequence from SEQ ID NO:6 (variable heavy chain) and an antigen binding portion of an amino acid sequence encoded by a nucleic acid sequence from SEQ ID NO:17 (variable light chain).

82. A method according to claim 79, wherein the antibody or antigen binding portion thereof comprises an antigen binding portion of an amino acid sequence encoded by a nucleic acid sequence selected from the group consisting of a nucleic acid sequence which encodes the variable heavy chain produced by the hybridoma having ATCC deposit no. HB-12126, and a nucleic acid sequence which encodes the variable light chain produced by the hybridoma having ATCC deposit no. HB-12126.

83. A method according to claim 79, wherein the antibody or antigen binding portion thereof comprises an antigen binding portion of an amino acid sequence encoded by a nucleic acid which encodes the variable heavy chain produced by the hybridoma having ATCC deposit no. HB-12126 and an antigen binding portion of an amino acid sequence encoded by a nucleic acid which encodes the variable heavy chain produced by the hybridoma having ATCC deposit no. HB-12126.

84. A method according to claim 58, 70, 72, or 78, wherein the antibody is a monoclonal antibody.

85. A method according to claim 58, 70, 72, or 78, wherein the antibody or antigen binding portion thereof is internalized with the prostate specific membrane antigen.

86. A method according to claim 58, 70, 72, or 78, wherein the antibody or antigen binding portion thereof is selected from the group consisting of a Fab fragment, a F(ab')₂ fragment, and a Fv fragment.

87. A method according to claim 58, 70, 72, or 78, wherein the antibody or antigen binding portion thereof further comprises a cytotoxic drug.

88. A method according to claim 87, wherein the cytotoxic drug is selected from the group consisting of a therapeutic drug, a compound emitting radiation, molecules of plant, fungal, or bacterial origin, biological proteins, and mixtures thereof.

89. A method according to claim 87, wherein the cytotoxic drug is a compound emitting radiation.

90. A method according to claim 89, wherein the compound emitting radiation is an alpha-emitter.

91. A method according to claim 90, wherein the alpha-emitter is selected from the group consisting of ²¹²Bi, ²¹³Bi, and ²¹¹At.

92. A method according to claim 89, wherein the compound emitting radiation is a beta-emitter.

93. A method according to claim 92, wherein the beta-emitter is ¹⁸⁶Re.

94. A method according to claim 92, wherein the beta-emitter is ⁹⁰Y.

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95. A method according to claim 89, wherein the compound emitting radiation is a gamma-emitter.

96. A method according to claim 95, wherein the gamma-emitter is ^{131}I .

97. A method according to claim 89, wherein the compound emitting radiation is a beta- and gamma-emitter.

98. A method according to claim 88, wherein the cytotoxic drug is a molecule of bacterial origin.

99. A method according to claim 88, wherein the cytotoxic drug is a molecule of plant origin.

100. A method according to claim 88, wherein the cytotoxic drug is a biological protein.

101. A method according to claim 58, 70, 72, or 78, wherein the antibody or antigen binding portion thereof further comprises a label.

102. A method according to claim 101, wherein the label is selected from the group consisting of a biologically-active enzyme label and a radiolabel.

103. A method according to claim 101, wherein the label is a radiolabel selected from the group consisting of ^{111}In , $^{99\text{m}}\text{Tc}$, ^{32}P , ^{125}I , and ^{188}Rh .

104. A method according to claim 58, 70, 72, or 78, wherein the antibody or antigen binding portion thereof is effective to initiate an endogenous host immune function.

105. A method according to claim 104, wherein the endogenous host immune function is complement-mediated cellular cytotoxicity.

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106. A method according to claim 104, wherein the endogenous host immune function is antibody-dependent cellular cytotoxicity.

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107. A method according to claim 58, 70, 72, or 78, wherein the antibody or antigen binding portion thereof is in a composition further comprising a pharmaceutically acceptable carrier, excipient, or stabilizer.

108. The method according to claim 58, 70, 72, or 78, wherein the antibody is administered in conjunction with a second therapeutic modality.

109. The method according to claim 108, wherein the second therapeutic modality is selected from the group consisting of surgery, radiation, chemotherapy, immunotherapy and hormone replacement.

110. The method according to claim 109, wherein the hormone replacement comprises treatment with estrogen or an anti-androgen agent.

111. The method according to claim 110, wherein the anti-androgen agent is an agent which blocks or inhibits the effects of testosterone. --
